

### REMARKS

This Amendment is being filed in response to the Office Action mailed from the U.S. Patent and Trademark Office on January 5, 2007, in which claims 9, 11-13 and 26-32 were rejected. With this Amendment, claims 28 and 32 are amended. No new matter has been added. Thus, Applicant respectfully requests reconsideration and allowance of pending claims 11-13 and 26-32.

The Office Action rejected claims 11-13, 26-29 and 32 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,530,030 ("Suga"). The Office Action also rejected claims 11-13, and 26-32 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,022,091 ("Goodman") in view of The Organic Chemistry of Drug Design and Drug Action, 1992, pp. 15-19 ("Silverman"). The Office Action has also rejected claims 28-30 as failing to distinctly claim the subject matter under U.S.C. §112.

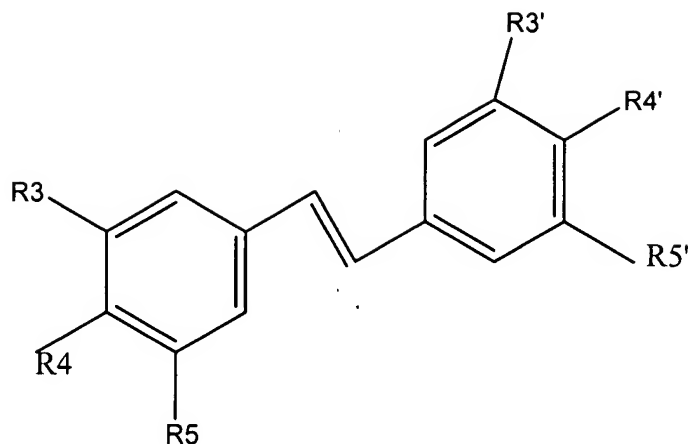
#### Rejections Under 35 U.S.C. § 112

Claims 28-30 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention and because of the presence of the group CI. Applicant has amended claim 28 to correct a typographical error and "CI" has been amended to read "Cl". Thus, withdrawal of the rejection of claim 28 and claims 29 and 30, which depend from claim 28, is respectfully requested.

#### Rejections Under 35 U.S.C. § 102

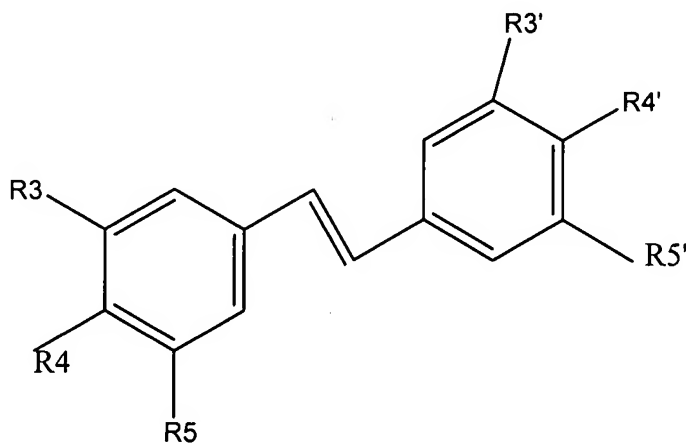
Claims 11-13, 26-29 and 32 stand rejected under 35 U.S.C. 102(b) as being anticipated by Suga. Without acceding to the propriety of the Examiner's characterization of Suga or of the rejection, claims 28 and 32 have been amended to further define the claimed subject matter.

As amended, independent claim 28 is directed to a compound having, *inter alia*, formula I:



wherein the compound is a trans isomer and R3, R5 are selected from the group consisting of OH, O-C<sub>1</sub>-C<sub>6</sub> alkoxy, F, Cl, and CF<sub>3</sub>, R4, R5' are H, R3', R4' are independently selected from the group consisting of OH, O-C<sub>1</sub>-C<sub>6</sub> alkoxy, F, Cl, CF<sub>3</sub>, and H, with the following provisos: R3' is different than R4', wherein R3 and R5 are both OH, OCH<sub>3</sub>, or OCH<sub>3</sub>CH<sub>3</sub>, R4' is not OH, OCH<sub>3</sub>, or OCH<sub>3</sub>CH<sub>3</sub>, wherein R3 and R5 are both Cl, R4' is not Cl, wherein **R3 and R5 are both Cl, R3' is not OH or OCH<sub>3</sub>**, and wherein R3 and R5 are both F, R3' is not OCH<sub>3</sub>, and symmetrical derivatives thereof.

As amended, independent claim 32 is directed to a compound having, *inter alia*, formula I:



wherein the compound is a cis or trans isomer and R3, R5 are selected from the group consisting of OH, O-C<sub>1</sub>-C<sub>6</sub> alkoxy, F, Cl, and CF<sub>3</sub>; R4, R5' are H, R3', R4' are independently selected from the group consisting of OH, O-C<sub>1</sub>-C<sub>6</sub> alkoxy, F, Cl, CF<sub>3</sub>, and H, with the following provisos: wherein R3 and R5 are both OH, OCH<sub>3</sub>, or OCH<sub>3</sub>CH<sub>3</sub>, R4' is not OH, OCH<sub>3</sub>, or OCH<sub>3</sub>CH<sub>3</sub>, **wherein R3 and R5 are both Cl, R3' is not**

**OH or OCH<sub>3</sub>**, and symmetrical derivatives thereof, and a pharmaceutically acceptable carrier.

Claims 28 and 32 now recite a compound having formula I wherein **when R3 and R5 are both Cl, R3' is not OH or OCH<sub>3</sub>**. This recitation specifically distinguishes over Suga's "compound and composition comprising the compound having the claimed formula I, wherein R3 and R5 are Cl, R4 is H, **R3' is OH or OMe**, and R4' and R5' are H" (1/5/07 Office Action, Page 3) (emphasis added). Thus, Suga does not disclose or suggest a compound having formula I wherein **when R3 and R5 are both Cl, R3' is not OH or OCH<sub>3</sub>** and Applicant respectfully requests reconsideration and allowance of independent claims 28 and 32. Claims 11-13, 26 and 27 and claim 29 respectively depend from claims 32 and 28 and are allowable for at least the same respective reasons as claims 32 and 28.

Rejections Under 35 U.S.C. § 103

Claims 11-13 and 26-32 stand rejected under 35 U.S.C. 103(a) as being obvious over Goodman in view of Silverman. Without acceding to the propriety of the Examiner's characterization of Goodman and/or Silverman or of the combination, Applicant submits that changing the -OH group by F or Cl in resveratrol is not obvious due to unexpected results obtained by such a change.

Per MPEP § 2144.09, "a *prima facie* case of obviousness based on structural similarity is rebuttable by proof that the claimed compounds possess unexpectedly advantageous or superior properties. *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (Affidavit evidence which showed that claimed triethylated compounds possessed anti-inflammatory activity whereas prior art trimethylated compounds did not was sufficient to overcome obviousness rejection based on the homologous relationship between the prior art and claimed compounds.); *In re Wiechert*, 370 F.2d 927, 152 USPQ 247 (CCPA 1967) (a 7-fold improvement of activity over the prior art held sufficient to rebut *prima facie* obviousness based on close structural similarity)."

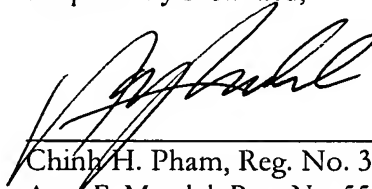
Substituting the OH groups of resveratrol of Goodman with a Cl or F group, which the Examiner argues is taught by Silverman as being classical isosteres, would not have been *prima facie* obvious because of unexpected results. For example, the object of the diacetylation of morphine in heroine was the reduction of the toxic effects; however, the reverse was obtained. On the contrary, salicylate acetylation into acetyl salicylic acid resulted in a potentialization of the expected effects.

Referring to CF<sub>3</sub>-dichloro derivatives of resveratrol with CF<sub>3</sub> in position 3 or 4, as can be seen in Table I, entitled Characteristics of trans-Stilbenes Derivatives, of the above-identified application, it appears that derivative 4i is a super-agonist with an affinity increased of x800 for Ah receptor while derivative 4k is a poor antagonist with only a x20 affinity for receptor Ah. Moreover, the cis derivatives are practically all inactive. Thus, the effect of the substituents cannot be predicted with certainty and the substitutions of Cl and F groups for OH groups would have produced unexpected results. Thus, withdrawal of the rejection of claims 11-13 and 26-32 as being unpatentable over Goodman in view of Silverman is respectfully requested.

In view of the foregoing amendments and remarks, Applicant submits that the rejections are overcome. Withdrawal of the pending rejections, and early and favorable reconsideration are respectfully solicited. In the event that a telephone conversation would further prosecute and/or expedite allowance, the Examiner is invited to contact the undersigned at (617) 310-6000.

Applicant does not believe that any fee other than the one month extension fee is required in connection with this Response. However, should any additional extension or fee be required, Applicant hereby petitions for same and requests that such and any other fee required for timely consideration of this application be charged to Deposit Account No. 50-2678, Reference 94919-010100.

Respectfully submitted,



Chinh H. Pham, Reg. No. 39,329  
Amy F. Mendel, Reg. No. 55,452

Greenberg Traurig, LLP  
One International Place  
Boston, MA 02110  
Telephone: (617)310-6000  
Facsimile: (617)310-6001